B. Tech. (Chemical Technology)  
(SEM. VIII) EXAMINATION, 2006-07  
PLASTIC TECHNOLOGY  
(PLASTIC PACKAGING & FOAM)  

Time: 3 Hours] [Total Marks: 100  

Note: Answer all the questions.  

1 Answer any four of the following: 5x4  
   (a) Name the polymers used in packaging.  
   (b) Recognize needs for packaging.  
   (c) Discuss wax paper.  
   (d) Testing of polymer films.  
   (e) Write the applications of PET polymers.  
   (f) Coextruded films for packaging of edible oils.  

2 Answer any two of the following: 10x2  
   (a) Describe the state of art of polymer packaging.  
   Describe also scope of packaging.  
   (b) Describe the elements of packages.  
   (c) Describe the functions of packages.  

3 Answer any two of the following: 10x2  
   (a) Describe the common packaging polymer films.  
   Describe also the effect of orientation on polymer films in respect of packaging.  

[Contd...]
(b) Describe the shrink films. How are they used for packaging of products?
(c) Describe the properties and application of PVDC polymer films.

4 Answer any **two** of the following: 10x2
(a) What are blowing agents and what for they are used? Discuss the requirements of blowing agents.
(b) Describe Polyurethane foams. Discuss also the rigid and flexible foams.
(c) Describe Polyethylene or Polystyrene foams. Discuss the properties and applications.

5 Answer any **two** of the following: 10x2
(a) Describe the metals used along with polymer films. What are their advantages and disadvantages?
(b) Discuss the laminations used for packaging purposes. Describe the basic process for lamination.
(c) Describe the rubber hydrochloride for packaging, discuss also their advantages and disadvantages.